## INVESTIGATOR'S ANNUAL REPORT

## **National Park Service**

All or some of the information provided may be available to the public

Reporting Year:	Park:
1997	Shenandoah NP
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No co-investigators	
Permit#: SHEN1997AULD	
Park-assigned Study Id. #: unknown	
Project Title:	
Fish Population And Habitat Recovery Following A Catastrophic Event In An Appalachian Mountain Watershed In Shenandoah National Park (N-160A	
II)	
Permit Start Date:	Permit Expiration Date
Jan 01, 1998	Jan 01, 1998
Study Start Date: Jan 01, 1997	Study End Date Jan 01, 1997
Study Status:	
Completed	
Activity Type: Research	
Subject/Discipline:	
Other	
Objectives:	
Measure impacts on fish habitats and fish communities in Staunton River following a catastrophic flood. Specifically, we are documenting fish	
movement into the flood affected zone, monitoring changes in age class distributions, describing habitat changes, and calculating basinwide estimates of production.	
Findings and Status:	
Sampling occurred in both May and October 1997. About 20% of all habitat units (pools and riffles) were sampled from the confluence of Rapidan and	
Staunton Rivers up Staunton River to the fire tower road stream crossing. Only brook trout and blacknose dace were sampled from the gauging station on lower Staunton River upstream. Two age-classes (0, 1) of brook trout were found throughout the flood-affected zone. Blacknose dace were found	
only in low gradient pools or in isolated pool-like microhabitats. Growth of brook trout was greater in the flood-affected zone. Movement of PIT	
taggeed fish appears to be limited with little mixing of fish (except for downstream movement of young-of-year) among up and down-stream sites.  Otoliths were removed from fish collected by SNP biologists and us during routine sampling; the otoliths and fish (frozen specimens) are being analyzed	
for age and genetic characteristics by the Dept. of Fisheries & Wildlife at Virginia Tech.	
For this study, were one or more specimens collected and removed from the park but not destroyed during analyses?	
Yes	
Funding provided this reporting year by NPS:	Funding provided this reporting year by other sources:
3500	5000
Fill out the following ONLY IF the National Park Service supported this project in this reporting year by providing money to a university or college	
Full name of college or university:	Annual funding provided by NPS to university or college this reporting

	year:
Virginia Tech	7000